



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

January 31, 1997

Terry Reed  
Bureau of Land Management  
1661 S. 4th Street  
El Centro, CA 92243

Dear Mr. Reed:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the **Imperial Mine Project, Imperial County, California**. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The DEIS analyzes impacts of alternatives for constructing and operating an open pit precious metal mine in Imperial County. The proposed action would affect 1,625 acres of public lands and include three open pits, a heap leach facility, waste rock piles, groundwater production wells, and other ancillary facilities.

Based on our review of this project, we have rated this DEIS as EC-2 -- Environmental Concerns-Insufficient Information (see the enclosed "Rating Definitions and Follow-Up Actions"). Our rating is based on our concerns regarding impacts to surface waters and recommendations for improved facilities design, as well as the need for additional information in the Final Environmental Impact Statement (FEIS) regarding avoidance and mitigation of impacts to waters of the U.S., reduction of PM10 emissions, and facilities design.

We appreciate the opportunity to review this DEIS. Please send a copy of the Final Environmental Impact Statement to this office when it is officially filed with our Washington, D.C., office. If you have any questions, please call me at (415) 744-1584 or Jeanne Geselbracht of my staff at (415) 744-1576.

Sincerely,

  
David J. Farrel, Chief  
Federal Activities Office

Enclosures

cc: Colorado River Regional Water Quality Control Board

## Water Quality

The DEIS (p. 4-64) states that the project will either require an individual permit, issued by the U.S. Army Corps of Engineers, pursuant to Clean Water Act Section 404 or operate under one or more Nationwide permits. According to the DEIS (p. 3-13), there are at least 25.31 acres of waters of the U.S. on the project site. However, we could not find any discussion in the DEIS regarding the potential impacts of the proposed project on these waters. The FEIS should describe the potential impacts of the proposed project on waters of the U.S.

The BLM and mining company should consult with the U.S. Army Corps of Engineers regarding a Section 404 permit as soon as possible so that the necessary information can be included in the FEIS. If a permit is required, EPA will review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the Clean Water Act.

Pursuant to 40 CFR 230, any permitted discharge into waters of the U.S. must be the least environmentally damaging practicable alternative available to achieve the project purpose. If, under the proposed project, dredged or fill material would be discharged into waters of the U.S., the FEIS should discuss alternatives to avoid those discharges. If a discharge is permitted, the FEIS should discuss how potential impacts would be minimized and mitigated. This discussion should include: (a) acreage and habitat type of waters of the U.S. that would be created or restored through mitigation; (b) water sources to maintain the mitigation area; (c) the revegetation plans including the numbers and age of each species to be planted; (d) maintenance and monitoring plans, including performance standards to determine mitigation success; (e) the size and location of mitigation zones; (f) the parties that would be ultimately responsible for the plan's success; and (g) contingency plans that would be enacted if the original plan fails. Mitigation should be implemented in advance of the impacts, to avoid habitat losses due to the lag time between the occurrence of the impacts and successful mitigation.

## Facilities Design

The heap leach pad design appears to be inadequate. The ability of a 20-mil polyvinyl chloride (PVC) secondary liner to be laid down without quality control problems such as tearing seems doubtful. We believe a 60-mil primary and 40-mil secondary liner system would be more appropriate than the proposed liner system.

Furthermore, achieving quality control for the a four-inch compacted, fine-grained bedding material could prove difficult. EPA recommends a thicker subbase of at least 12 inches be required.

Freshly crushed 1.25-inch-diameter gravel on top of a thin liner could puncture the liner. Compatibility of the rock size, type, and angularity with the liner material and thickness must be demonstrated. In addition, the thickness of the gravel layer which is protective of the liner during ore placement must be determined by the method of ore placement and should be identified in the FEIS.

The thickness of the pond liners (DEIS, p. 2-17) appears inadequate because quality control may be difficult to achieve. The geotextile separating the two liners of the pond would compact under pressure and prevent the leaching solution from easily flowing to the collection sump. A free draining geonet, as specified for the sides of the pond, may be more appropriate. This should be addressed in the FEIS. The FEIS should also clarify and describe the OGR liner.

The diversion channels have been designed to convey runoff from the 100-year/24-hour storm event. Given the flash flood conditions found in this region, however, EPA believes this may be inappropriate and recommends that the diversion structures are designed to accommodate the 100-year/6-hour event. The FEIS (Section 2.1.9.7) should address this issue and reference Attachment C of the DEIS, "Hydrologic Analysis for the Imperial Mine Project," prepared by Westec.

The calculations of the 24-hour storm event done for the hydrologic analysis should include more recent data, if available, in addition to the 1973 "Precipitation Frequency Atlas for the Western United States - California."

### **Biological Resources**

EPA supports the use of floating plastic balls or a solid cover over pregnant and barren solution ponds in order to preclude birds and bats from landing in the ponds (DEIS, p. 4-59). We recommend that BLM require floating balls or plastic covers for solution ponds, as netting frequently causes bird injury and/or mortality.

### **Air Quality**

Included in the mitigation measures on page 4-35 of the DEIS is a commitment to apply water no less than once per day (if water

sprays are used) unless road surface moisture is documented as sufficient to suppress fugitive dust emissions without additional water. We would like to point out that water is commonly sprayed on roads several times each day at mine sites, as needed. The mitigation discussion in the FEIS and Record of Decision (ROD) should reflect this.